



## **Annual Drinking Water Quality Report for 2016**

CITY OF ALBANY

DEPARTMENT OF WATER & WATER SUPPLY

10 NORTH ENTERPRISE DRIVE

(Public Water Supply ID# NY 0100 189)

### **Introduction**

To comply with State regulations, the Albany Water Board issues an annual report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. Last year, your tap water met State drinking water health standards. We are proud to report that our system had no violations of maximum contaminant levels in the 2016 reporting year. This report provides an overview of last year's water quality, and includes details about where your water comes from, what it contains, and how it compares to State standards. We are pleased to provide you with this information because informed customers are our best customers.

If you have any questions about this report or concerning your drinking water, please contact the City of Albany, Department of Water and Water Supply at 518-434-5300. If you want to learn more, please attend any of our regularly scheduled Albany Water Board meetings. The meetings are normally held the fourth Friday of each month at 9:30 A.M. at the 10 North Enterprise Drive offices of the Albany Water Department. The schedule of Water Board meetings is posted on our website;

<http://www.albanyny.org/Government/Departments/WaterAndWaterSupply.aspx>

### **Where does our water come from?**

In general, the sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and can pick up substances resulting from the presence of animals or from human activities. Atmospheric sources of contamination enter our water sources through rain and snowfall. Contaminants that may be present in source water include: microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants. In order to ensure that tap water is safe to drink, the State and the EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Health Department and FDA regulations also establish limits for contaminants in bottled water which must provide the same protection for public health.

Our water source is the Alcove Reservoir, which is surface water and is located on the Hannacroix Creek in the Town of Coeymans. This reservoir has a capacity of 13.5 billion gallons, an average depth of 25 feet and a maximum depth of 75 feet. The Basic Creek Reservoir, in the town of Westerlo, is a secondary source that may be used to augment flow into the Alcove Reservoir to maintain the Alcove elevation. During 2016, our system did not experience any restriction of your water usage due to lack of source; however, there were restrictions in August and September due to a water transmission main shutdown on South Lake Avenue and Elberon Place while repairs were made to the sewer and water systems in that area. The Town of Colonie assisted us by providing water to supplement our supply during this period (please see table of detected contaminants in Town of Colonie water, appended).

The water source receives treatment including pre-oxidation, disinfection, addition of coagulants, sedimentation, pH and alkalinity adjustment, and filtration at the Feura Bush Filtration Facility. Chlorine is added as a residual disinfectant to maintain microbiological quality throughout the distribution system. Ultraviolet light disinfection is a supplemental disinfectant used at the Loudonville Reservoir.



## Facts and Figures

Our water system serves over 98,000 City residents, commercial, institutional and industrial accounts through approximately 29,000 service connections, and the Towns of Bethlehem and Guilderland through purchase water agreements. The total water treated in 2016 was 6,688,938,544 gallons. The daily water production averaged 18,275,788 gallons, with maximum daily production of 24,202,080 gallons. This year the amount of water produced for customers was 6,633,553,544 gallons, allowing 55,385,000 gallons for filter washes and other filtration plant domestic use. In 2016, from August 8<sup>th</sup> - September 26<sup>th</sup> during a water transmission main shutdown on South Lake Avenue and Elberon Place associated with emergency repairs, an additional 164,241,891 gallons of water was purchased from Latham Water district to fulfill the requirements of our customers. In 2016, water customers were charged \$2.67 per 100 cubic feet of water, which equals \$3.57 per 1000 gallons.

## Are there contaminants in our drinking water?

As State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: total coliform, turbidity, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, haloacetic acids, and synthetic organic compounds. The table presented below depicts which compounds were detected in your drinking water. The State allows us to test for some contaminants less than once per year because the concentrations of these contaminants do not change frequently, though all of our data represented here is from 2016 analysis.

It should be noted that all drinking water, including bottled drinking water, should be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA Safe Drinking Water Hotline at 800-426-4791 or the Albany County Health Department at 518-447-4620.

Table of Detected Contaminants							
Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg.) (Range)	Unit of Measure	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Total Coliform <sup>1</sup>	No	4/2016 7/2016 9/2016	2 positive 1 positive 1 positive	N/A	0	MCL 5% or more Positive of sites sampled per month	Naturally present in the environment.
Turbidity <sup>2</sup>	No	Five days per week	Max: 0.06 (0.03 – 0.11)	NTU	N/A	TT < 1.0 NTU	Soil runoff.
	No	Six times daily	100.0 % <0.3	NTU	N/A	TT 95% of samples <0.30	Soil runoff.
Color	No	Five days per week	1.42 (1.0-3.0)	Color units	N/A	15.0 Color units	Natural metallic ions, humic and fulvic acids and dissolved plant components.
Odor	No	Five days per week	2.0 (1-3)	Threshold units	N/A	3 Threshold units	Decaying vegetation and metabolites of microbiota.
Sodium <sup>3</sup>	No	11/2016	18.3	mg/L	NA	20.0 mg/L 270 mg/L	Occurs naturally in almost all waters.
Chloride	No	Five days per week	31.01 (26.20-34.20)	mg/L	N/A	MCL 250 mg/L	Soils, road salt.
Sulfate	No	Monthly	10.7 (9.9-11.9)	mg/L	N/A	MCL 250 mg/L	Occurs naturally in almost all waters.
Barium	No	11/2016	0.0057	mg/L	2	2 mg/L	Erosion of natural deposits.
Copper <sup>4</sup>	No	2016	61.0 (2.1-81.2)	µg/L	1300	AL 1300 µg/L	Corrosion of pipes.
Lead <sup>5</sup>	No	2016	8.51 (ND-37.3)	µg/L	0	AL 15 µg/L	Corrosion of pipes.

Total Trihalomethane	No	Quarterly	52.4 ( 34.8-64.5)	µg/L	N/A	MCL 80 µg/L LRAA <sup>6</sup>	Disinfection by-products, resulting from chlorinating drinking water.
Haloacetic Acids	No	Quarterly	22.3 (15.1-25.9)	µg/L	N/A	MCL 60 µg/L LRAA	Disinfection by-products, resulting from chlorinating drinking water.
Total Organic Carbon	No	Monthly	1.6 (1.3-1.8)	mg/L	N/A	TT	Occurs naturally in almost all waters.
Chlorine Residual	No	Six times daily	1.03 0.48-1.34	mg/L	4.0 mg/l	MCL 4.0 mg/L	Added to drinking water to Inhibit microbial growth.
Distribution Turbidity <sup>7</sup>	No	10/2016	2.79	NTU	NA	MCL 5 NTU	Resultant from treatment process.
<b>Radionuclides:</b>							
Alpha particles	No	Bi-weekly	1.1 (ND-2.6)	pCi/L	NA	15 pCi/L	Erosion of natural deposits.
Beta particles	No	Bi-weekly	0.47 (ND-2.2)	pCi/L	NA	50 pCi/L <sup>8</sup>	Erosion of natural deposits.

**Notes:**

<sup>1</sup> Coliform are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful bacteria may be present. Total coliforms were detected only in 4 samples in 2016, in April, 2 out of 112 routine samples (Less than 2.0%), in July 1 out of 105 (Less than 1.0%) routine samples and in September, 1 out of 107 routine samples (Less than 1.0%). Additional samples were subsequently collected and total coliforms were not detected in those repeat samples. Since total coliforms were detected in less than 5% of the samples collected during the month, the system did not have a MCL violation. It should be noted that *E. coli*, associated with human and animal fecal waste, was not detected in any of the samples collected.

<sup>2</sup> Turbidity is a measure of the cloudiness of the water. We test it because it is a good indicator of the effectiveness of our filtration system. Our highest turbidity measurement for the year occurred on 12/29/16 (0.11NTU) after plant was shut down for a day. State regulations require that 95% of the turbidity samples collected have measurements below 0.30 NTU.

<sup>3</sup> Water containing more than 20 mg/L of sodium should not be used for drinking water by people on severely restricted sodium diets. Water containing more than 270 mg/L of sodium should not be used for drinking by people on moderately restricted sodium diets.

<sup>4</sup> The level presented represents the 90<sup>th</sup> percentile of the 52 sites tested in 2016. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. The 90<sup>th</sup> percentile is equal to or greater than 90% of the copper values detected at your water system. In this case, 52 samples were collected at your water system and the 90<sup>th</sup> percentile value was the 61.0 µg/L with the highest detected value of 81.2 µg/L. The action level (1300µg/L) for copper was not exceeded at any of the sites tested.

<sup>5</sup> The level presented 8.51 µg/L represents the 90<sup>th</sup> percentile of the samples collected. The action level (15µg/L) for lead was exceeded at two (2) of the 52 sites tested. The highest level detected was 37.3 µg/L.

<sup>6</sup> Locational Running Annual Averages for total Trihalomethane and Haloacetic acid.

<sup>7</sup> Distribution turbidity is a measure of the cloudiness of the water found in the distribution system. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants. Our highest average monthly distribution turbidity measurement detected during the year (2.79 NTU) occurred in October 2016. This value is below the State maximum contaminant level.

<sup>8</sup> The State considers 50 pCi/L to be the level of concern for beta particles.

**Definitions:**

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLG as feasible.

**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG allow for a margin of safety.

**Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment, or other requirements which a water system must follow.

**Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.

**Non-Detects (ND):** Laboratory analysis indicates that the constituent is below detection level or not present.

**Nephelometric Turbidity Unit (NTU):** A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**Milligrams per Liter (mg/L):** Corresponds to one part of liquid in one million parts of liquid (parts per million (ppm)).

**Micrograms per Liter (µg/L):** Corresponds to one part of liquid in one billion parts of liquid (parts per billion (ppb)).

**Picocuries per Liter (pCi/L):** A measure of radioactivity in water.



## Non-Detected Contaminants

According to State regulations, the Albany Water Board routinely monitors your drinking water for various contaminants.

Contaminants that were analyzed for but were found to be below detection limits are not included in this report, however, all required testing was completed according to Local, State, and Federal laws. {A list of non-detected contaminants can be found on City of Albany, Department of Water and Water Supply Website.}

The contaminants that were detected in your drinking water are included in the Table of Detected Contaminants. Additionally, your water is tested for coliform bacteria four days per week.

## What does this information mean?

As you can see by the table, our system had no violations in the reporting year 2016. We have learned through our testing that some contaminants have been detected; however, these contaminants were detected below New York State requirements.

The City of Albany Water Department has implemented a program to minimize lead levels in your drinking water. This program includes: 1) the adjustment of pH and alkalinity levels to minimize corrosion; 2) the replacement of lead service lines as distribution lines are replaced; and, 3) public education. The water department conducted lead and copper testing on select 52 residences in 2016, and the action level for lead was exceeded at two (2) of the 52 sites tested. The highest level detected was 37.3 µg/L.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. The City of Albany Water Department is responsible for providing high quality drinking water, but cannot control a variety of materials used in plumbing components. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested. Also, you may flush your cold tap for 30 seconds to 2 minutes before using tap water for cooking or drinking. Additional information is available from the Safe Drinking Water Hotline at 1-800-426-4791 or at <http://www.epa.gov.safewater.lead>.

## Is our water system meeting other rules that govern operations?

During 2016, our system was in compliance with applicable Local, State and Federal drinking water regulations: operating, monitoring and reporting requirements.

## Information on Cryptosporidium

Cryptosporidium is a microbial pathogen found in surface water and groundwater under the influence of surface water. Although filtration removes Cryptosporidium, the most commonly used filtration methods cannot guarantee 100 percent removal. During 2015 as a part of our requirement and to improve the quality of your drinking water City of Albany , Water System started a long term monitoring ( 24 months ) of our source water for Cryptosporidium. In 2016 City of Albany, Water Systems continued monitoring, twelve more monthly samples were collected and analyzed for Cryptosporidium oocysts and none were detected.

Ingestion of Cryptosporidium may cause cryptosporidiosis, a gastrointestinal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their health care provider regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease and it may be spread through means other than drinking water.



## Information on Giardia

Giardia is another microbial pathogen present in varying concentrations in many surface waters and groundwater under the influence of surface water. Giardia is removed/inactivated through a combination of filtration and disinfection or by disinfection. During 2015 as a part of our requirement and to improve the quality of your drinking water City of Albany , Water systems started a long term monitoring ( 24 months ) of our source water for Giardia. In 2016 City of Albany, Water Systems continued monitoring, twelve more monthly samples were collected and analyzed for Giardia cysts and none were detected.

Ingestion of Giardia may cause giardiasis, an intestinal illness. People exposed to Giardia may experience mild or severe diarrhea, or in some instances no symptoms at all. Fever is rarely present. Occasionally, some individuals will have chronic diarrhea over several weeks or a month, with significant weight loss. Giardiasis can be treated with anti-parasitic medication. Individuals with weakened immune systems should consult with their health care providers about what steps would best reduce their risks of becoming infected with Giardiasis. Individuals who think that they may have been exposed to Giardiasis should contact their health care providers immediately. The Giardia parasite is passed in the feces of an infected person or animal and may contaminate water or food. Person to person transmission may also occur in day care centers or other settings where handwashing practices are poor.

## Do I Need to Take Special Precautions?

Although our drinking water met or exceeded State and Federal regulations, some people may be more vulnerable to disease causing microorganisms or pathogens in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care provider about their drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium, Giardia and other microbial pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

## Why Save Water and How to Avoid Wasting It?

Although our system has an adequate amount of water to meet present and future demands, there are a number of reasons why it is important to conserve water:

- ♦ Saving water saves energy and some of the costs associated with both of these necessities of life.
- ♦ Saving water lessens the strain on the water system during a dry spell or drought helping to avoid severe water use restrictions so that essential fire fighting needs are met.
- ♦ You can play a role in conserving water by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It is not hard to conserve water. Conservation tips include:
  - ♦ Run only full loads in dishwashers and washing machines.
  - ♦ Turn off the tap when brushing your teeth.
  - ♦ Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you may save almost 6,000 gallons per year.
  - ♦ Check your toilets for leaks by putting a few drops of food coloring in the tank, watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from one of these otherwise invisible toilet leaks. Fix it and you save more than 30,000 gallons per year.
  - ♦ Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances, then check the meter after 15 minutes, if it moved, you have a leak.

## **System Improvements**

Capital projects completed in 2016 included replacement of 100 feet of 42-inch transmission main on South Lake Avenue, and completion of the Feura Bush Chemical Building Masonry and Roof Repairs. Engineering Assessments were completed for the Alcove Reservoir Dam, the Basic Creek Reservoir Dam, and the Rensselaer Lake Dam. Design was progressed for the Alcove Gatehouse Rehabilitation and the Feura Bush Office and Laboratory Renovations.

The current Capital Improvement Program include the construction phase of the Alcove Gatehouse Rehabilitation; Final Design and Construction of Feura Bush Filtration Plant Office and Laboratory Renovations, including Replacement of Gas Chlorine and Fuel Tank Replacement ; Loudonville Basin C Repairs; and the Tivoli Preserve Patroon Creek Daylighting Project which will include protection of critical water infrastructure. In the design phase are the Upper Washington Corridor New Storage and New Pump Station Project. An Engineering Assessment is being performed for the Loudonville Reservoir. Financing is being sought for permanent interconnections to the Town of Colonie water system.

## **Closing**

Thank you for allowing us to continue to provide you and your family with quality drinking water this year. We ask that all of our customers help us protect our water sources, which are the heart of our community. Please call our office at 518-434-5300 if you have questions concerning your drinking water.



LATHAM WATER DISTRICT - TABLE OF DETECTED CONTAMINANTS								
CONTAMINANT	VIOLATION Yes/No	DATE OF SAMPLE	LEVEL DETECTED	AVG MAX/MIN RANGE	UNIT MEASUREMENT	REGULATORY LIMIT MCL, MRDL, AL or TT	MCLG	LIKELY SOURCE OF CONTAMINATION
<b>Microbiological Contaminants</b>								
Distribution System Turbidity (1)	No	Daily Testing	0.18 1.50 0.05-1.5	Avg Max Range	NTU	5.0 (MCL)	N/A	Soil Run-off.
Turbidity (1) Combined Filter Effluent high sample from 06/07/16	No	Continuous	0.07 0.04 0.12	Avg Min Max	NTU	TT=95% of Samples<= 0.3 NTU	N/A	Soil Run-off.
Total Coliform (2)	No	3-4 days per week	2 positive samples 2/2/2016 & 5/19/2016		N/A	Any Positive Sample	>5% positive samples in any month	Naturally present in the environment.
<b>Inorganic Contaminants</b>								
Copper (3)	No	Sept 2015	0.11 0.03-0.55	Avg Range	mg/L	1.3 (AL)	1.3	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching
Lead (4)	No	Sept 2015	2 <1.0 - 24	Avg Range	ug/L	15 (AL)	0	Corrosion of household plumbing systems; Erosion of natural deposits.
Sodium (5)	No	10/04/16	36.2		mg/L	See Note 5		Naturally occurring; Road salt; Water softeners; Animal waste.
Nitrate	No	10/04/16	0.7		mg/L	10.0 (MCL)	10.0	Runoff from fertilizer use; Erosion of natural deposits.
Color (range)	No	Daily	1-6	Range	Units	15 (MCL)	N/A	Color has no health effects. Its presence is aesthetically objectionable.
Chloride	No	Weekly	36.3 29.7-50.1	Avg Range	ppm	250.0 (MCL)	N/A	No health effects. Naturally occurring or indicative of road salt contamination.
Hardness	No	Weekly	121.0 93.4-140	Avg Range	ppm	No MCL	N/A	No health effects. Naturally occurring minerals.
Sulfate	No	10/04/16	58.0		mg/L	250 (MCL)	N/A	Geology.
Barium	No	10/04/16	0.0313		mg/L	2.0 (MCL)	N/A	Discharge of drillings wastes; discharge from metal refineries; erosion of natural deposits.
<b>Radiologicals</b>								
Gross Alpha	No	Monthly on Raw Water	1.31 0.45-2.6	Avg Range	pCi/L	15.0 pCi/L	0	Decay of natural deposits and man-made emissions.
Gross Beta (6)	No	Monthly on Raw Water	1.85 0.65-2.6	Avg Range	pCi/L	50.0 pCi/L	0	Decay of natural deposits and man-made emissions.
Tritium	No	Monthly on Raw Water	57.5 39-80	Avg Range	pCi/L	20,000 pCi/L	0	Decay of natural deposits and man-made emissions.
<b>Disinfection Byproducts</b>								
Total Trihalomethanes (7)	No	Quarterly 02/03/16 05/04/16 08/03/16 11/02/16	60.4 - Highest locational running annual avg. 33.5-74.8 - Annual range for all locations	Max Range	ug/L	80 ug/L	N/A	By-products of drinking water chlorination. TTHM's are formed when source water contains large amounts of organic matter.
Total Haloacetic Acids (7)	No	Quarterly 02/03/16 05/04/16 08/03/16 11/02/16	31.0 - Highest locational running annual avg. 20.0-41.0 - Annual range for all locations	Max Range	ug/L	60 ug/L	N/A	By-products of drinking water chlorination.
Total Organic Carbon (8)	No	Daily Testing	1.82 1.23-2.8	Avg Range	ppm	TT	N/A	Naturally present in the environment.
Free Chlorine Residual @ Entry Point (9)	No	Continuous	1.96 1.4-2.59	Avg Range	mg/L	4.0 (MRDL)	N/A	Used in the disinfection and treatment of drinking water.
Free Chlorine Residual Distribution System	No	5 days per week	1.23 0.03-2.43	Avg Range	ppm	4.0 (MRDL)	N/A	A measurable residual is required by NYSDOH.
Chlorine Dioxide Residual (range)	No	Daily Testing	0.02 <0.01-0.19	Avg Range	mg/L	0.8 (MRDL)	N/A	By-product of drinking water disinfection at treatment plants using Chlorine Dioxide.
Chlorite	No	Daily Testing	0.37 0.06-0.73	Avg Range	mg/L	1.0 (MCL)	N/A	By-products of drinking water chlorination.

#### Analysis performed or reviewed by ELAP ID# 10000

##### NOTES:

1. Turbidity is a measure of the cloudiness of the water. We test it because it is a good indicator of the effectiveness of our filtration system. State regulations require that 95% of the combined filter effluent turbidity samples collected have measurements below 0.30 NTU. Distribution system turbidity is collected a minimum of five times a week. A distribution system turbidity violation occurs when the monthly average of the results of all distribution samples collected in any calendar month exceeds the MCL. Our average distribution system turbidity was 0.18 NTU with a single high turbidity measurement of 1.50 NTU. All levels recorded were well below the acceptable range allowed and did not constitute a treatment technique violation.
2. A violation occurs when more than 5% of the total coliform samples collected in a month are positive.
3. The level presented represents the 90th percentile of the sites tested. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. The 90th percentile is equal to or greater than 90% of the copper values detected at your water system. In this case, 30 samples were collected at your water system and the 90th percentile value was the fourth highest sample with a level of 0.20 mg/L.
4. The level presented represents the 90th percentile of the 30 samples collected. The action level for lead was exceeded at 1 of the 30 sites tested.
5. Water containing more than 20 mg/L of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing more than 270 mg/L of sodium should not be used for drinking by people on moderately restricted sodium diets.
6. The State considers 50 pCi/L to be the level of concern for beta particles.
7. The level presented represents the maximum locational running annual average calculated from the samples collected.
8. Total Organic Carbon itself is not regulated, but its calculated removal and compliance ratio must equal or exceed performance requirements established by USEPA. All levels recorded were well below the acceptable range allowed and did not constitute a treatment technique violation.
9. Compliance is based on a running arithmetic average, computed quarterly, of monthly averages of all samples collected by the system. If the running annual average exceeds the MRDL, the system is in violation and must notify the public.

##### Definitions:

**Action Level (AL):** The concentration of a contaminant which, if exceeded triggers treatment or other requirements which a water system must follow.

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible.

**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health.

MCLG's allow for a margin of safety.

**Maximum Residual Disinfectant Level (MRDL):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a drinking water disinfectant below which there is no known or expected risk to health.

MRDLG's do not reflect the benefits of the use of disinfectants for control of microbial contaminants.

**Non-Detects (ND):** Laboratory analysis indicates that the constituent is not present.

**Nephelometric Turbidity Unit (NTU):** A measure of the optical clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**Milligrams per liter (mg/L):** Corresponds to one part of liquid in one million parts of liquid (parts per million - ppm).

**Micrograms per liter (ug/L):** Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).

**Picocuries per liter (pCi/L):** a measure of the radioactivity in water.

**Treatment Technique (TT):** a required process intended to reduce the level of a contaminant in drinking water.